



Accredited Africa Training Institute for Capacity Development

Unit FO409, Hatfield Plaza · 1122 Burnett St, Hatfield 0028 · Pretoria, Gauteng · South Africa

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COURSE BROCHURE

Withered Leaf Rolling And Fermentation Techniques Training

Agriculture and Nature Conservation / Secondary Agriculture

Unit Standard 115826 · NQF Level 2 · 12 Credits · 9 Days

COURSE OVERVIEW

This course equips learners with the advanced skills required to manage the rolling and fermentation processes of withered tea leaves, ensuring consistent quality and safety. It addresses the critical control points in withered leaf processing, focusing on rolling techniques, fermentation monitoring, and hygiene standards to meet industry requirements.

Category	Agriculture and Nature Conservation
Subfield	Secondary Agriculture
Unit Standard	115826
Accreditation	SAQA Accredited · NQF Level 2 · 12 Credits
Duration	9 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Apply correct rolling techniques to withered tea leaves to achieve desired leaf structure and oxidation.
- Monitor and control fermentation conditions including temperature, humidity, and duration to ensure product consistency.
- Evaluate the quality of rolled and fermented leaves against industry standards.
- Implement hygiene and safety protocols during handling and processing of withered leaves.
- Demonstrate proper use and maintenance of rolling and fermentation equipment.
- Analyze factors affecting fermentation and adjust processes to optimize product quality.

WHO SHOULD ATTEND

- This training is designed for tea processing workers, supervisors, and quality controllers in the tea industry who are responsible for the rolling and fermentation stages of withered leaf production.

COURSE OUTLINE

Day 1: Introduction to Withered Leaf Processing

- Overview of the tea, rooibos, and herbal leaf industries
- Raw material characteristics: leaf morphology, moisture content, and maturity
- Fundamentals of fermentation: microbial and enzymatic reactions
- Introduction to withering: purpose and methods
- Workplace safety, personal protective equipment, and sanitation standards

Day 2: Withering Techniques and Equipment

- Natural withering: racks, thin spreading, and turning
- Forced-air withering: troughs, fans, and heaters
- Sun withering: tarpaulins, windbreaks, and UV considerations
- Instrumentation: hygrometers, thermometers, moisture meters
- Quality indicators: pliability, colour change, and aroma development

Day 3: Fermentation Science and Starter Cultures

- Microbiology of leaf fermentation: yeasts, bacteria, and moulds
- Starter culture propagation and storage
- pH monitoring and adjustment using buffers
- Temperature control: ambient, insulated, and heated systems
- Off-flavours and defects: causes and corrective actions

Day 4: Fermentation Vessel Design and Batch Management

- Open vs. closed fermentation systems
- Material selection: stainless steel, food-grade plastic, clay
- Batch sizing and loading density
- Data recording: temperature curves, pH profiles, and microbial counts
- Cleaning-in-place (CIP) and steam sterilisation procedures

Day 5: Drying and Stabilisation of Fermented Leaf

- Drying kinetics and moisture migration
- Solar drying: racks, greenhouses, and moisture barriers
- Mechanical drying: temperature, airflow, and belt speed
- Water activity measurement and shelf-life prediction
- Vacuum packaging, nitrogen flushing, and desiccants

Day 6: Quality Control and Sensory Evaluation

- Sampling protocols and statistical process control
- Sensory panel training: flavour wheels and reference standards
- Colour measurement: Hunter Lab, spectrophotometry
- Microbiological testing: total plate count, yeast and mould
- Non-conformance reports and root cause analysis

Day 7: Product Development and Recipe Formulation

- Flavour balancing and masking techniques
- Herbal and fruit infusions: processing compatibility
- Pilot plant setup and process transfer
- Yield calculations: dry matter loss, moisture adjustment

- Accelerated shelf-life testing and sensory cut-off points

Day 8: Regulatory Compliance and Certification

- Overview of relevant legislation: Foodstuffs, Cosmetics and Disinfectants Act
- Hazard Analysis and Critical Control Points (HACCP) for leaf processing
- Traceability: batch codes, lot numbers, and recall procedures
- Labelling: nutritional information, country of origin, best-before dates
- Waste reduction: composting, recycling, and water treatment

Day 9: Practical Integration and Final Assessment

- Hands-on production run: withering, fermentation, drying, packaging
- Real-time data logging and decision-making
- Sensory panel evaluation of final product
- Written test covering theory and calculations
- Feedback session and certificate preparation

ASSESSMENT & CERTIFICATION

Delegates are assessed through exercises and a final test. A mark of **50% or above** earns an **AATICD Certificate of Completion**, issued digitally with a unique verification code. This course carries **12 NQF credits** at **NQF Level 2**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 33,300.00	R 33,300.00
1	In-House	R 43,300.00	R 43,300.00
1	On-Campus (Pretoria)	R 50,000.00	R 50,000.00

UPCOMING SESSIONS

Start	End	Method	Venue
07 Aug 2026	19 Aug 2026	On-Campus	Pretoria, South Africa
07 Aug 2026	19 Aug 2026	On-Campus	Lagos, Nigeria
10 Aug 2026	20 Aug 2026	On-Campus	Durban, South Africa
10 Aug 2026	20 Aug 2026	On-Campus	Mauritius
11 Aug 2026	21 Aug 2026	On-Campus	Cape Town, South Africa
12 Aug 2026	24 Aug 2026	On-Campus	Dubai, UAE
13 Aug 2026	25 Aug 2026	On-Campus	Pretoria, South Africa
14 Aug 2026	26 Aug 2026	On-Campus	Abu Dhabi, UAE

Contact us if no suitable date is listed – on-demand sessions can be arranged for groups.

HOW TO GET A QUOTE OR APPLY

1. **Get an instant quotation online:** visit www.aaticd.co.za, open the page for this course (Unit Standard 115826) and click **Get A Quote / Apply**. Select your training method and number of delegates – your quotation is generated immediately and emailed to you with the course brochure attached.
2. **Apply by email:** send the course title, your preferred training method (Online, In-House or On-Campus Pretoria), the number of delegates and your preferred dates to apply@aaticd.co.za – our team will reply with a formal quotation.
3. **Apply by phone or WhatsApp:** call +27 12 004 8389 or WhatsApp +27 65 077 6310 and we will prepare your quotation and reserve your seats.
4. **Confirm your booking:** accept the quotation and settle the invoice. As soon as payment is confirmed your delegates are enrolled and receive their AATICD LMS login details by email, along with joining instructions for their chosen training method.

Group discounts apply automatically – the more delegates you enrol, the lower the price per delegate. No payment is required to request a quotation.

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